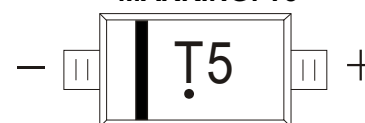


SOD-523



MARKING: T5



FEATURES

- I Small Package
- I Low Reverse Current
- I Fast Switching Speed
- I Surface Mount Package Ideally Suited for Automatic Insertion

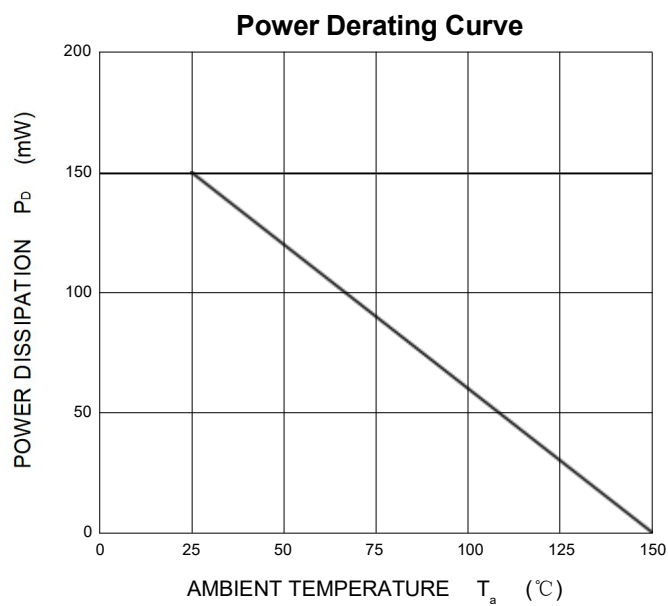
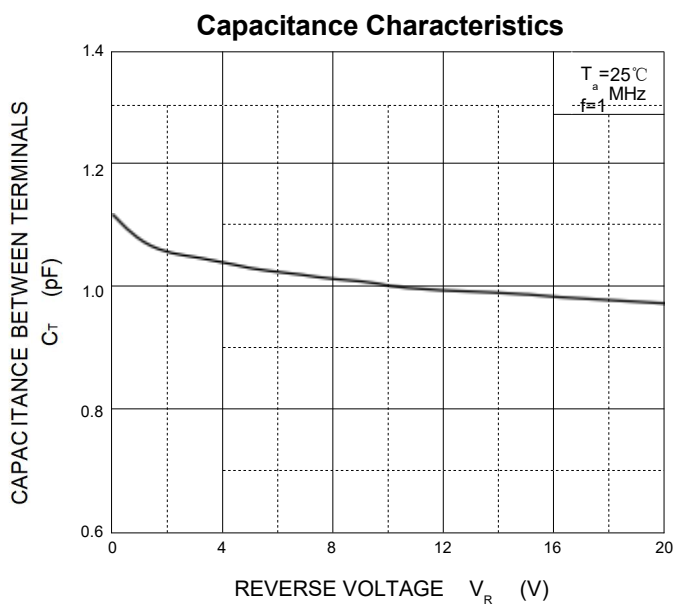
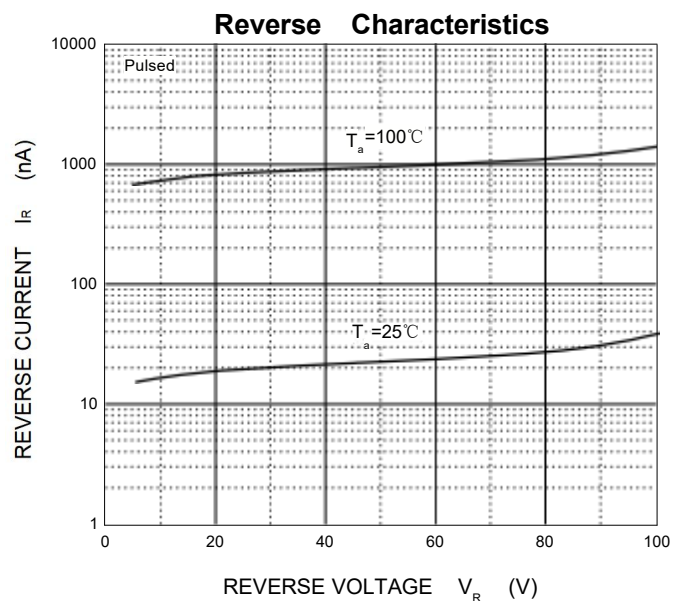
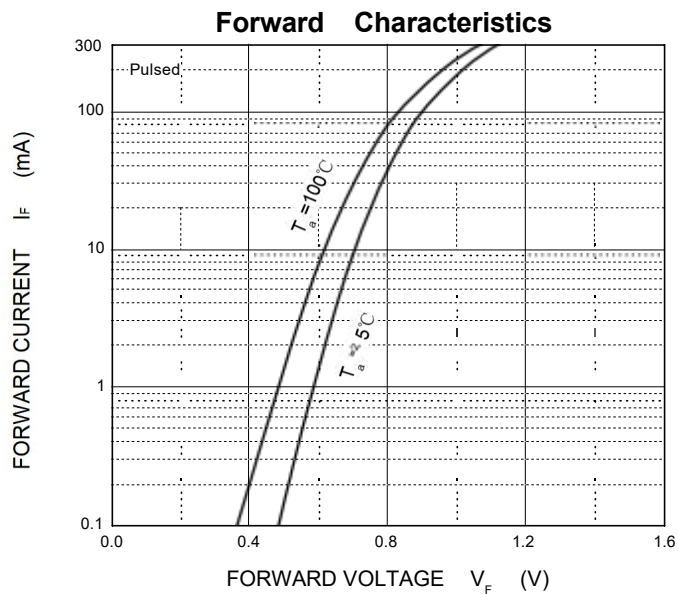
Maximum Ratings and Electrical Characteristics, Single Diode @Ta=25℃

Parameter	Symbol	Limit	Unit
Non-Repetitive Peak Reverse Voltage	V_{RM}	100	V
Peak Repetitive Peak Reverse Voltage	V_{RRM}		
Working Peak Reverse Voltage	V_{RWM}	75	V
DC Blocking Voltage	V_R		
RMS Reverse Voltage	$V_{R(RMS)}$	53	V
Forward Continuous Current	I_{FM}	500	mA
Average Rectified Output Current	I_o	250	mA
Non-Repetitive Peak Forward Surge Current @t=8.3ms	I_{FSM}	2.0	A
Power Dissipation	P_d	150	mW
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	833	℃/W
Operation Junction and Storage Temperature Range	T_J, T_{STG}	-55~+150	℃

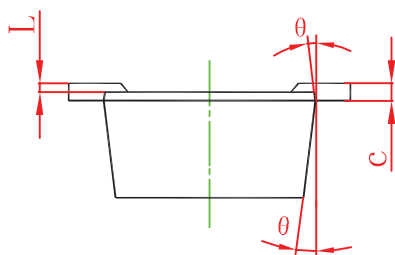
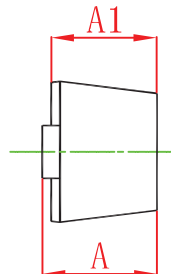
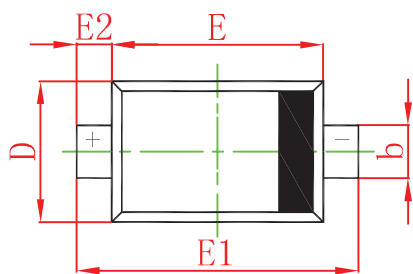
ELECTRICAL CHARACTERISTICS(T_a=25℃ unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Reverse voltage	$V_{(BR)1}$	$I_R=5\mu A$	75			V
Reverse voltage	$V_{(BR)2}$	$I_R=100\mu A$	100			V
Reverse current	I_R	$V_R=75V$			1	μA
		$V_R=20V$			25	nA
Forward voltage	V_F	$I_F=5mA$			0.715	V
		$I_F=10mA$			0.855	V
		$I_F=100mA$			1	V
		$I_F=150mA$			1.25	V
Total capacitance	C_{tot}	$V_R=0V, f=1MHz$			4	pF
Reverse recovery time	t_{rr}	$I_F=I_R=10mA, I_{rr}=0.1*I_R, R_L=100\Omega$			4	ns

Typical Characteristics

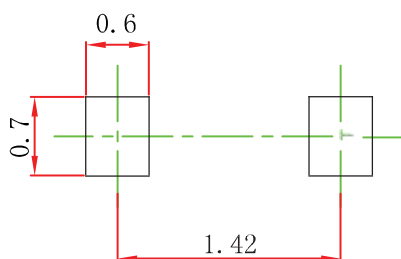


SOD-523 Package Outline Dimensions



symbol	Dimensions in Millimeters		Dimensions in Inches	
	Min	Max	Min	Max
A	0.510	0.770	0.020	0.031
A1	0.500	0.700	0.020	0.028
b	0.250	0.350	0.010	0.014
c	0.080	0.150	0.003	0.006
D	0.750	0.850	0.030	0.033
E	1.100	1.300	0.043	0.051
E1	1.500	1.700	0.059	0.067
E2	0.200 REF		0.008 REF	
L	0.010	0.070	0.001	0.003
θ	7° REF		7° REF	

SOD-523 Suggested Pad Layout



Note:

1. Controlling dimension: in millimeters.
2. General tolerance: $\pm 0.05\text{mm}$.
3. The pad layout is for reference purposes only.